## Remarks

Claims 1 to 11 remain pending in this application. Claim 7 has been amended to clearly define the claimed subject matter. Support for this amendment exists at least in paragraph [0012] of the original specification.

The Examiner rejected claims 1 to 11 as being unpatentable over U.S. Patent No. 5,408,060 to Muurinen in view of U.S. Patent No. 5,818,361 to Acevedo. Applicants respectfully disagree and request reconsideration of the rejections having regard to the following remarks.

## Scope and content of the cited art

Muurinen discloses an illuminated pushbutton keyboard in which keys are operable in at least two different modes. Each key is provided with symbols or areas of color, which denote the different modes. The symbols or areas are selectively illuminated depending upon which mode is selected. The mode of operation is changed with the pushbutton 16 (FCN) (see Muurinen, abstract and column 3, lines 10 to11).

Acevedo's keyboard consists of two types of keys, viz., function keys 14 and a plurality of display keys 12. The function keys 14 comprise of "a standard CTRL key, SHIFT key, CAPS LOCK key, ENTER key, and ALT key situated on the keyboard with conventional indicia imprinted thereon" (see Acevedo column 3, lines 64 to 67). The standard control circuitry 13 of the keyboard is "adapted to depict via the display keys data relevant to the function of the key during a current software application" (see Acevedo column 4, lines 27 to 29).

The input mode selector of Acevedo allows a user/manufacturer to impart multi-functionality to various display keys of the display keyboard. For example, "in games wherein pictures of fire buttons, ray guns, laser guns, cannons, throttles, steering wheel-like controls, pedals, and brakes may be depicted to represent a function of the present game" (see Acevedo, column 4, lines 8 to 11).

The Examiner has admitted that Muurinen does not teach, "that said input mode selector receives, from one of the at least two applications, a signal indicative of a default active input mode in response to execution of the one of at least two applications." However, the Examiner states that Acevedo teaches "an input device, wherein in response to execution of one of at least two applications, a signal is sent to the input mode selector 13, when a particular software application or game is launched, indicating the default active input mode so that the input mode selector 13 can configure the display keys accordingly." Applicants submit that, for reasons provided hereinafter, the input mode selector 13 for configuring the display keys disclosed by Acevedo is inherently different from the input more selector as recited in Claim 1. Applicants respectfully submit that neither reference, either together or combined, teach every element of the claims.

**Differences between the claimed invention and the cited art**

For the Examiner's convenience, Claim 1 recites:

> A mobile device for executing at least two applications, having a keyboard, the mobile device comprising:
>
> an input mode selector for receiving, from one of the at least two applications, a signal indicative of a default active input mode in response to execution of the one of the at least two applications and for determining an active input mode of the keyboard of the mobile device in accordance with the received signal indicative of the default active input mode, the keyboard having a plurality of keys, each of the plurality of keys having at least two pre-existing indicia depicted thereon; and
>
> a backlight controller responsive to the active input mode provided by the input mode selector for controlling at least one light source to selectively illuminate one of the at least two pre-existing indicia on the plurality of keys, the illuminated indicia defining an active portion of the keyboard of the mobile device.

The input mode selector and the backlight controller operate in relation to a keyboard of a mobile device. The backlight controller controls at least one light source to selectively illuminate one of the at least two pre-existing indicia on the plurality of keys. The illuminated indicia define an active portion of the keyboard of the mobile device. The input controller does not configure a blank "display key" to display a particular character on the key based on the current software application.

Nowhere does Acevedo describe the selective illumination of keys on which there are at least two pre-existing indicia, as Acevedo is primarily concerned with configuring blank "display keys" to display characters relevant to the current software application. Acevedo does not contemplate the selective illumination of the function keys 14 with conventional indicia imprinted thereon. As such, Acevedo cannot teach selective illumination of one of at least two pre-existing indicia on a plurality of keys on a keyboard of a mobile device, as presently claimed.

**Level of ordinary skill in the pertinent art**

From the foregoing discussion, it is evident that Muurinen discloses an illuminated pushbutton keyboard for a mobile device without an input mode selector as claimed in claim 1. Acevedo, on the other hand, teaches a display keyboard for configuring blank "display keys" to display characters relevant to the current software application. Applicants submit that no one of ordinary skill in the art, having regard to Muurinen, would look to Acevedo. Moreover, Muurinen's keyboard is classified under USPTO Class 200/314: ELECTRICITY: CIRCUIT MAKERS AND BREAKERS – Push button type, while Acevedo's keyboard is classified under USPTO Class 341/23: CODED DATA GENERATION OR CONVERSION – having optical waveguide. As such, a person with ordinary skill in art faced with a technical problem of selectively illuminating a keyboard of a mobile device (a pushbutton keyboard) would not look for a solution in the field of data generation or conversion having optical waveguide. The types of problems encountered by a person in the filed of pushbutton keyboards would not lead the person of ordinary skill to look to prior art solutions to those problems in the field of data generation or conversion.

Furthermore, as submitted in the previous response, it is not reasonable or practical to use the display key technology as taught by Acevedo in a mobile device. Keys on a mobile device keyboard are smaller and have a different form factor than those of a conventional keyboard. Having a plurality of display keys on a mobile device would involve excessive power consumption and additional cost for the circuitry required to control the display of each display key in a sufficient manner to display a character that can be visually perceived. The displays themselves on the display keys add further cost. There are additional power requirements with respect to lighting up a separate display for each display key, rather than simply selectively illuminating pre-existing indicia. Since each display key in Acevedo can have a different character or indicia, and therefore a different function based on the running software application, there is additional processing power required to update the mapping of they keys each time the depicted character is changed. While such processing power is abundant on a conventional computer as contemplated in Acevedo, it is much less so on a mobile device, which typically has a small processor and limited battery life. As such, due to the increased cost, power consumption and processing power involved in the display key technology of Acevedo, it cannot be contemplated for use in a mobile device.

Thus, Muurinen and Acevedo, either alone or in combination, do not teach an input mode selector and a backlight controller that controls, in response to an active input mode provided by the input mode selector, at least one light source to selectively illuminate one of the at least two pre-existing indicia on the plurality of keys of a keyboard of a mobile device, as claimed in claim 1.

Applicants respectfully submit that claim 1 is not obvious in light of the cited references, either alone or in combination. It has already been established that the display key technology of Acevedo is not suitable for use in a mobile device, and therefore attempting to combine it with Muurinen cannot yield the invention as claimed. Accordingly, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. 103(a) be withdrawn.

Claim 7 has been amended to recite “wherein the active portion is selectively illuminated using a different single color illumination level than a non-active portion of the keyboard” (emphasis added). Muurinen, at column 3, lines 11 to 66, discloses the use of bicolor LEDs and optical filters to achieve different color illumination. Muurinen does not disclose or teach selectively illuminating the active portion of a keyboard of a mobile device using different levels of illumination using a single color, as claimed. Thus, Muurinen and Acevedo, either alone or in combination, do not teach the features recited in claim 7. Accordingly, Applicants respectfully request that the rejection of claim 7 under 35 U.S.C. 103(a) be withdrawn.

Applicants traverse the Examiner’s taking of “Official Notice” on claim 8. Applicants note that MPEP 2144.03 (A) requires:

> It would not be appropriate for the examiner to take official notice
> of facts without citing a prior art reference where the facts asserted

> to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. In re Ahlert, 424 F.2d at 1091, 165 USPQ at 420-21. See also In re Grose, 592 F.2d 1161, 1167-68, 201 USPQ 57, 63 (CCPA 1979).

And further, MPEP 2144.03(E) requires:

> It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection was based. See Zurko, 258 F.3d at 1386, 59 USPQ2d at 1697; Ahlert, 424 F.2d at 1092, 165 USPQ 421.

Applicants note that the Examiner has taken “Official Notice” without evidentiary support in the record as the principal evidence upon which a rejection of claim 8 was based, contrary to the requirements of MPEP 2144.03.

In the Office Action of December 14, 2005, the Examiner stated that “applicant admits that one skilled in the art would recognize that optical cancellation and other methods can be implemented to achieve the same result as the optical cancellation (page 7 of the specification, lines 11-15).”

Applicants respectfully deny that they have made any such admission. For the Examiner’s convenience, the specification at page 7, lines 11 to 15 is recited below:

> As noted, this embodiment can be implemented through the use of optical cancellation, or through the use of different phosphors that illuminate, and distinguish themselves from the natural color of a key, under different lighting conditions. One skilled in the art will readily appreciate that a number of other such approaches can be implemented to achieve this result.

Nothing in this passage is an admission of the prior use of optical cancellation in selectively illuminated keyboards of a mobile device, as claimed. Applicants have not admitted, and do not admit that one skilled in the art would recognize that optical cancellation could be used to selectively illuminate an active portion of the keyboard, without impermissible hindsight. Applicants submit, therefore, that claim 8 is both novel and non-obvious in view of the cited art. Accordingly, Applicants respectfully request that the rejection of claim 8 under 35 U.S.C. 103(a) be withdrawn.

Claims 2, 6, 9, and 10, as well as the other dependent claims, are dependent on claim 1 and include all of its features and limitations. Therefore, by virtue of inclusion of those limitations, Applicant submits that all of the dependent claims are patentable in view of the cited references. Accordingly, Applicant respectfully requests that the rejections of claims 1 to 11 under 35 U.S.C. 103(a) be withdrawn. Applicant submits that the application is now in condition for allowance and earnestly solicits action to that end.

**The Commissioner is hereby authorized to debit $1,050.00 from Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP, representing the fees for a three month extension of time.**

The Commissioner is hereby authorized to charge any additional fees, and credit any over payments to Deposit Account No. 501593, in the name of Borden Ladner Gervais LLP.

Respectfully submitted,

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